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(54) Title: A TRUNCATED KERATINOCYTE GROWTH FACTOR (KGF) HAVING INCREASED BIOLOGICAL ACTIVITY

| (57) Abstract | | | | | | |
|---|--|--|-----------------|----------------------|-----------------|--|
| (37) Abstract | | Long Form St. | art. | • . | CHO Šite | |
| The present invention | | 1 | | 10 | 15 | |
| | sequence | CYS-ASN-ASP-HET-TRR-PRO-GLU-GLN-HET-ALA-TRR-ASN-VAL-ASN-CYS- | | | | |
| relates to a keratinocyte growth | | L | • | | | |
| factor fragment, KGFdcs1-23, that | | | rt | | | |
| is composed of a portion of an | | 16 | 20 | 25 | 30 | |
| amino acid sequence of mature, full | sequence | SER-SER-PRO- | GLU-ARG-BIS-TH | R-ARC SER-TYR-ASP-TY | R-MET-GLU-GLY- | |
| length keratinocyte growth factor. | | | | · L | | |
| KGF ₁₆₃ . The portion possesses at | | 31 | 35 | 40 | 45 | |
| least a 2-fold increase in mitogenic | sequence | GLY-ASP-ILE- | ARG-VAL-ARG-ARG | G-LEU-PRE-CYS-ARG-TR | R-GLN-TRP-TYR- | |
| activity as compared to a mature, | | 46 | 50 | . 55 | 60 | |
| recombinant keratinocyte growth | sequence | LEU-ARG-ILE-ASP-LYS-ARG-GLY-LYS-VAL-LYS-GLY-THR-GI.N-GLU-MET- | | | | |
| factor, rKGF, but lacks a sequence | •••• | | • | | | |
| comprising the first 23 amino acid | | 61 | 65 | 70 | 75 | |
| residues, C-N-D-M-T-P-E-O-M- | sequence LYS-ASN-ASN-TYR-ASN-ILE-MET-GLU-ILE-ARG-TRR-VAL-ALA-VAL-GL' | | | | | |
| A-T-N-V-N-C-S-S-P-E-R-H-T-R- | • | | | | | |
| | | 76 | 80 | 85 | 90 | |
| of the KGF ₁₆₃ N-terminus. The | sequence | sequence ILE-VAL-ALA-ILE-LYS-GLY-VAL-GLU-SER-GLU-PHE-TYR-LEU-ALA-MET | | | | |
| present invention also relates | | | | | | |
| to a DNA molecule encoding | | 91 | 95 | 100 | 105 | |
| KGF _{d=1-23} , an expression vector | sequence | ASN-LYS-GLU-GLY-LYS-LEU-TYR-ALA-LYS-LYS-GLU-CYS-ASN-GLU-ASP- | | | | |
| and a transformed host containing | | | | | | |
| the DNA molecule, and a method of | | 106 | | 115 | 120 | |
| producing KGF _{des1-23} by culturing | sequence | CYS-ASN-PRE-LYS-GLU-LEU-ILE-LEU-GLU-ASN-BIS-TYR-ASN-TRR-TYR- | | | | |
| the transformed host. The present | | 121 | 125 | 130 | 135 | |
| invention further relates to a | sequence | | | S-ASH-GLY-GLY-GLU-M | ET-PRE-VAL-ALA- | |
| conjugate of KGFdes1-23 and a | 5040000 | | | | | |
| toxin molecule, and the use thereof | | 136 | 140 | 145 | 150 | |
| | sequence | LEU-ASN-GLN-LYS-GLY-ILE-PRO-VAL-ARG-GLY-LYS-LYS-TILR-LYS-LYS- | | | | |
| for treatment of hyperproliferative | • | | | | | |
| disease of the epidermis. Moreover, | | 151 | | 160 | | |
| the present invention relates to a | sequence | GIU-GLI-LYS-TRR-ALA-HIS-PRE-LEU-PRO-MIT-ALA-ILC-TRR | | | | |
| therapeutic composition containing | • | | | | | |
| KGFdes1-23 and a pharmaceutically accer- | eptable carrier an | d the use thereof fo | r wound healing | purposes. | | |